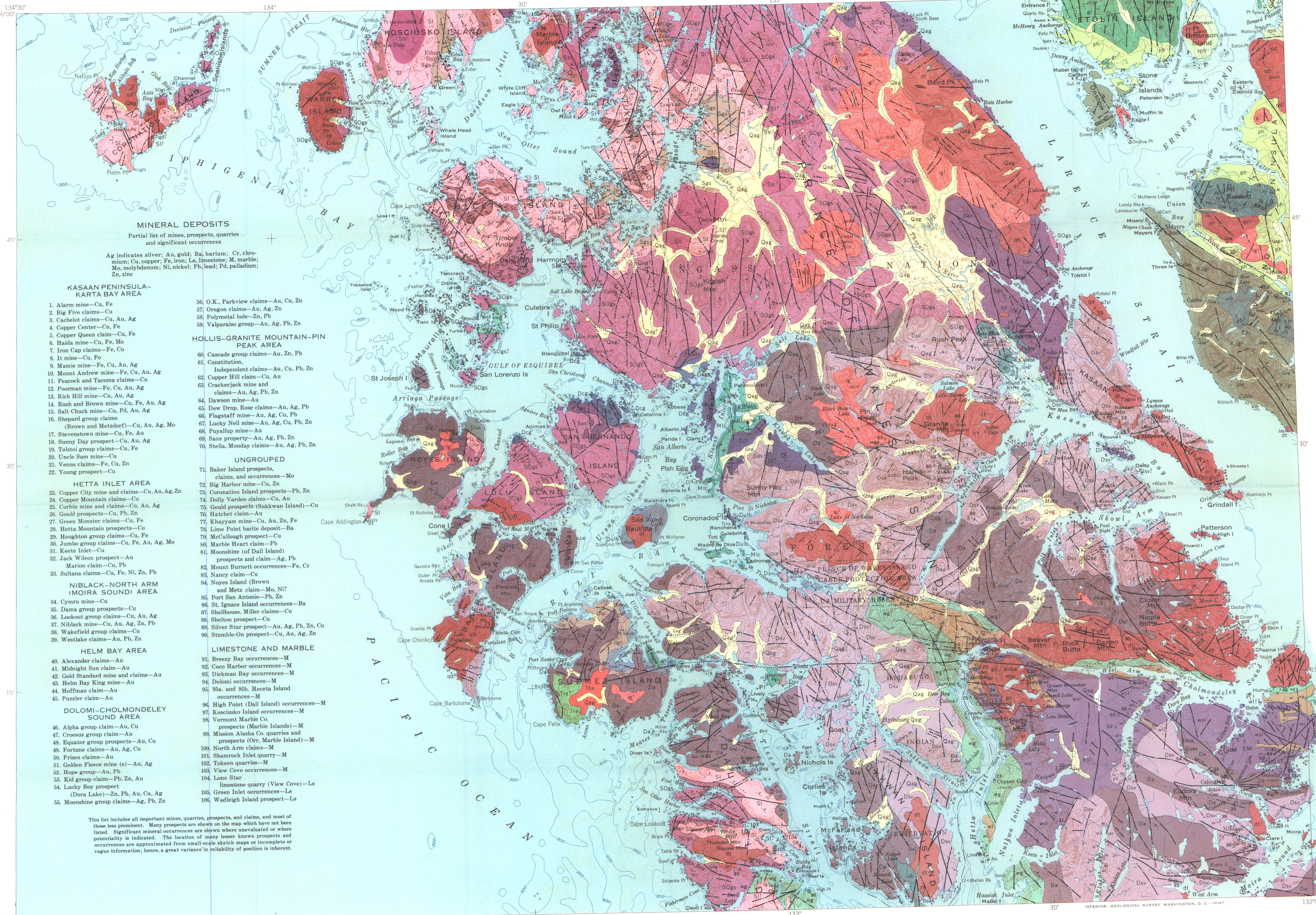
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



MINERAL DEPOSITS

Partial list of mines, prospects, quarries and significant occurrences

Ag indicates silver; Au, gold; Ba, barium; Cr, chromium; Cu, copper; Fe, iron; Ls, limestone; M, marble; Mo, molybdenum; Ni, nickel; Pb, lead; Pd, palladium; Zn, zinc

KASAAN PENINSULA-KARTA BAY AREA

1. Alarm mine—Cu, Fe
2. Big Five claims—Cu
3. Cachelot claims—Cu, Au, Ag
4. Copper Center—Cu, Fe
5. Copper Queen claim—Cu, Fe
6. Haida mine—Cu, Fe, Mo
7. Iron Cap claims—Fe, Cu
8. It mine—Cu, Fe
9. Mamie mine—Fe, Cu, Au, Ag
10. Mount Andrew mine—Fe, Cu, Au, Ag
11. Peacock and Tacoma claims—Cu
12. Poorman mine—Fe, Cu, Au, Ag
13. Rich Hill mine—Cu, Au, Ag
14. Rush and Brown mine—Cu, Fe, Au, Ag
15. Salt Chuck mine—Cu, Pd, Au, Ag
16. Shepard group claims (Brown and Metzdorf)—Cu, Au, Ag, Mo
17. Stevenstown mine—Cu, Fe, Au
18. Sunny Day prospect—Cu, Au, Ag
19. Tolstoi group claims—Cu, Fe
20. Uncle Sam mine—Cu
21. Venus claims—Fe, Cu, Zn
22. Young prospect—Cu

HETTA INLET AREA

23. Copper City mine and claims—Cu, Au, Ag, Zn
24. Copper Mountain claims—Cu
25. Corbin mine and claims—Cu, Au, Ag
26. Gould prospects—Cu, Pb, Zn
27. Green Monster claims—Cu, Fe
28. Hetta Mountain prospects—Cu
29. Houghton group claims—Cu, Fe
30. Jumbo group claims—Cu, Fe, Au, Ag, Mo
31. Keete Inlet—Cu
32. Jack Wilcox prospect—Au
    Marion claim—Cu, Pb
33. Sultana claims—Cu, Fe, Ni, Zn, Pb

NIBLACK-NORTH ARM (MOIRA SOUND) AREA

34. Cymru mine—Cu
35. Dama group prospects—Cu
36. Lookout group claims—Cu, Au, Ag
37. Niblack mine—Cu, Au, Ag, Zn, Pb
38. Wakefield group claims—Cu
39. Westlake claims—Au, Pb, Zn

HELM BAY AREA

40. Alexander claims—Au
41. Midnight Sun claim—Au
42. Gold Standard mine and claims—Au
43. Helm Bay King mine—Au
44. Hoffman claim—Au
45. Puzzler claim—Au

DOLOMI-CHOLMONDELEY SOUND AREA

46. Alpha group claim—Au, Cu
47. Croesus group claim—Au
48. Equator group prospects—Au, Cu
49. Fortune claims—Au, Ag, Cu
50. Frisco claims—Au
51. Golden Fleece mine (s)—Au, Ag
52. Hope group—Au, Pb
53. Kid group claim—Pb, Zn, Au
54. Lucky Boy prospect (Dora Lake)—Zn, Pb, Au, Cu, Ag
55. Moonshine group claims—Ag, Pb, Zn
56. O.K., Parkview claims—Au, Cu, Zn
57. Oregon claims—Au, Ag, Zn
58. Polymetal lode—Zn, Pb
59. Valparaiso group—Au, Ag, Pb, Zn

HOLLIS-GRANITE MOUNTAIN-PIN PEAK AREA

60. Cascade group claims—Au, Zn, Pb
61. Constitution, Independent claims—Au, Cu, Pb, Zn
62. Copper Hill claim—Cu, Au
63. Crackerjack mine and claims—Au, Ag, Pb, Zn
64. Dawson mine—Au
65. Dew Drop, Rose claims—Au, Ag, Pb
66. Flagstaff mine—Au, Ag, Cu, Pb
67. Lucky Nell mine—Au, Ag, Cu, Pb, Zn
68. Puyallup mine—Au
69. Saxe property—Au, Ag, Pb, Zn
70. Stella, Monday claims—Au, Ag, Pb, Zn

UNGROUPED

71. Baker Island prospects, claims, and occurrences—Mo
72. Big Harbor mine—Cu, Zn
73. Coronation Island prospects—Pb, Zn
74. Dolly Varden claims—Cu, Au
75. Gould prospects (Sukkwan Island)—Cu
76. Hatchet claim—Au
77. Khayyam mine—Cu, Au, Zn, Fe
78. Lime Point barite deposit—Ba
79. McCullough prospect—Cu
80. Marble Heart claim—Pb
81. Moonshine (of Dall Island) prospects and claim—Ag, Pb
82. Mount Burnett occurrences—Fe, Cr
83. Nancy claim—Cu
84. Noyes Island (Brown and Metz claim—Mo, Ni?
85. Port San Antonio—Pb, Zn
86. St. Ignace Island occurrences—Ba
87. Shellhouse, Miller claims—Cu
88. Shelton prospect—Cu
89. Silver Star prospect—Au, Ag, Pb, Zn, Cu
90. Stumble-On prospect—Cu, Au, Ag, Zn

LIMESTONE AND MARBLE

91. Breezy Bay occurrences—M
92. Coco Harbor occurrences—M
93. Dickman Bay occurrences—M
94. Dolomi occurrences—M
95. 95a. and 95b. Heceta Island occurrences—M
96. High Point (Dall Island) occurrences—M
97. Kosciusko Island occurrences—M
98. Vermont Marble Co. prospects (Marble Islands)—M
99. Mission Alaska Co. quarries and prospects (Orr, Marble Island)—M
100. North Arm claims—M
101. Shamrock Inlet quarry—M
102. Tokeen quarries—M
103. View Cove occurrences—M
104. Lone Star limestone quarry (View Cove)—Ls
105. Green Inlet occurrences—Ls
106. Wadleigh Island prospect—Ls

This list includes all important mines, quarries, prospects, and claims, and most of those less prominent. Many prospects are shown on the map which have not been listed. Significant mineral occurrences are shown where unevaluated or where potentiality is indicated. The location of many lesser known prospects and occurrences are approximated from small-scale sketch maps or incomplete or vague information; hence, a great variance in reliability of position is inherent.

Base map by Topographic Division
U. S. Geological Survey

GEOLOGIC MAP OF THE CRAIG QUADRANGLE, SOUTHEASTERN ALASKA

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

CONTOUR INTERVALS 200 AND 1000 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
AREAS NOT SURVEYED IN DETAIL INDICATED BY BROKEN LINES
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN FEET—DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

EXPLANATION

Formation symbols queried where identification doubtful.
Stratigraphic column modified from Buddington and Chapin (1929)

UNCONSOLIDATED DEPOSITS

QUATERNARY — Pleistocene and Recent

Qag — Alluvial and glacial deposits
River alluvium, valley drift, till, glacial and glaciofluvial sand and gravel; probably unstratified for the most part. Possibly includes local glacial lacustrine deposits of clay, silt, and sand, and marine-bench and terrace deposits of clay, silt, sand, and gravel

STRATIFIED ROCKS

TERTIARY — Eocene and Pliocene(?)

Tra, Tba — Extrusive volcanic rocks
Basaltic and andesitic lava, locally obsidian; minor proportion of interbedded breccia, tuff, and agglomerate, Tba; *rhyolitic and andesitic volcanic rocks,* Tra

TERTIARY — Eocene

Tsc, Tc — Sandstone and conglomerate
Sandstone with basal and intercalated conglomerate and thin coal seams locally, Tsc; *massive coarse conglomerate,* Tc

JURASSIC OR CRETACEOUS

KJgr — Schistose volcanic rocks, slate, and graywacke
Schistose greenstone, predominantly porphyry breccia with intercalated beds of tuff and lava flows, black slate, and graywacke

PERMIAN

Plc — Limestone
Closely folded, blue and gray

PENNSYLVANIAN(?)

Pl — Limestone
Massive white

MISSISSIPPIAN

Mlc — Limestone, chert, quartzite, and conglomerate
Cherty limestone, chert, and quartzite in upper part; coarsely crystalline limestone and thin-layered black chert in lower part; thin basal conglomerate and calcareous arkose

DEVONIAN — Upper Devonian

Dulb — Limestone and basalt
Includes small amount of sandstone, argillite, conglomerate, and tuff

DEVONIAN — Middle Devonian

Dl — Massive limestone

Dsv, Dgt — Sedimentary and volcanic rocks
Graywacke, slate, conglomerate, and limestone interbedded with lava flows, breccia, and tuff in varying proportions; limestone metamorphosed to marble locally, Dsv; *may be in part Silurian or older. Predominantly graywacke and tuff,* Dgt

Da — Andesitic lava, breccia, and conglomerate
Conglomerate includes cobbles of limestone. May be in part Silurian or older

Dsa, Dcg — Sedimentary rocks with interbedded andesitic volcanic rocks
Slate, limestone, and chert, with interbedded andesitic volcanic rocks, Dsa; *conglomerate and graywacke,* Dcg

SILURIAN — Upper Silurian

Sgs — Graywacke
Predominantly graywacke; locally red, greenish-gray, or gray sandstone, interbedded conglomerate and sandstone, or shale. Platy or thin-bedded to massive limestone present in upper part, at least locally

SILURIAN — Middle Silurian

Slc, Sl, Sc — Limestone, sandstone, and argillite
Massive limestone with locally interbedded and intercalated conglomerate, sandstone, or argillite, Slc; *massive limestone with small proportion of intercalated clastic strata,* Sl; *coarse conglomerate, and sandy or argillaceous beds,* Sc

ORDOVICIAN AND SILURIAN — Lower and Middle Ordovician and Lower Silurian

SOgs, Sav — Graywacke, slate, and andesitic volcanic rocks
Graywacke and dark-colored to black slate with small proportion of andesitic volcanic rocks, conglomerate, and limy sedimentary rocks, SOgs. *At least locally a marked disconformity is probable within the sequence which nearly everywhere exhibits essentially uniform stratigraphic characteristics. Units predominantly of andesitic volcanic rocks and conglomerate,* Sav, *distinguished locally are associated with graywacke, black slate, limestone, and tuff in varying proportions*

METAMORPHOSED ROCKS OF UNDETERMINED AGE

PROBABLY ORDOVICIAN TO JURASSIC OR LATER

sph, ph — Wrangell-Revillagigedo belt of metamorphic rocks
Crystalline schist and phyllite, sph; *phyllite, quartzite, and locally slate,* ph

PROBABLY PRE-ORDOVICIAN TO DEVONIAN

wsl, wl, wg — Wales group
Greenstone schist with a small proportion interbedded or intercalated limestone near base, wg; *limestone, locally metamorphosed to marble,* wl; *schist with limestone and slate in varying proportions,* wsl

INTRUSIVE ROCKS

JURASSIC OR CRETACEOUS — Upper Jurassic or Lower Cretaceous

gr — Granite and granitic rocks
As mapped probably includes varying amounts of dioritic rocks and some areas of metamorphosed sedimentary rocks

dt, qd, gd — Diorite, granodiorite, and quartz diorite
Diorite and dioritic rocks, dt; *includes granodiorite,* gd, *and quartz diorite,* qd, *locally; also some small masses and marginal variants such as gabbro and other rocks of intermediate composition*

ub, px, dn, gb, hb — Mafic and ultramafic rocks
Includes mafic and ultramafic rocks undifferentiated, ub; *pyroxenite,* px; *dunite,* dn; *hornblende-rich gabbro,* gb; *and hornblendite,* hb. *Diorite present locally*

ig — Intrusive rocks undifferentiated
Mapped solely by interpretation of aerial photographs in isolated areas or as extensions of known igneous masses. As mapped may include complexes of metamorphic rocks and intrusive igneous rocks

Contact established in field
Solid where accurately located by detailed mapping; long dashed where well established by reconnaissance mapping; short dashed where approximately located, inferred, or gradational

Contact based solely on photogeologic interpretation
Long dashed where closely located between well-defined units; short dashed where approximately located between relatively ill-defined units

Indefinite contact
Based on fragmental field information or tenuous extension from field-identified units by interpretation of aerial photographs

Fault or shear zone established in field, showing dip and relative movment
Dashed where approximately located; short dashed where inferred; dotted where concealed; queried where probable. U, *upthrown side;* D, *downthrown side*

Fault or shear zone based on interpretation of aerial photographs
Trace of linear feature presumably but not demonstrably related to fault or shear zone. Long dashed where well defined but discontinuous; short dashed where poorly or vaguely expressed; dotted where concealed

FOLDS

The generalized position of major structural axes are shown in figure 2

Anticline showing trace of axial plane and plunge of axis

Syncline showing trace of axial plane and plunge of axis

Dashed where approximately located; short dashed where inferred; queried where probable

Overturned syncline

ATTITUDE OF BEDDING, FOLIATION, OR SCHISTOSITY

FIELD MEASUREMENT — PHOTOGEOLOGIC INTERPRETATION

Strike and dip of beds

Strike of vertical beds

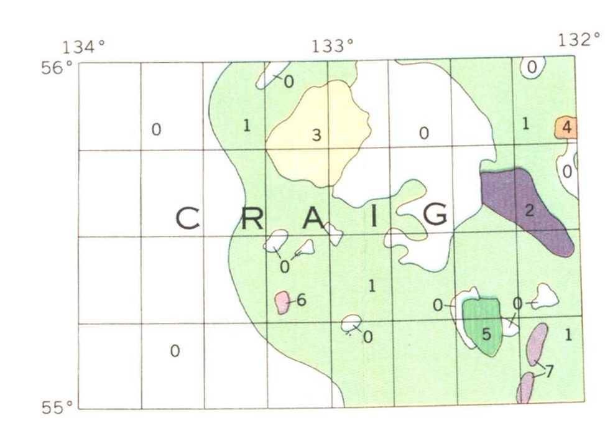
Generalized or approximately located strike and dip of beds

Generalized or approximately located strike of vertical beds

Mine or prospect
Number refers to accompanying list on left; those not numbered are not listed

Significant mineral occurrences
Little or no development; locations are general; may include small limestone and marble quarries. Number refers to accompanying list on left

Limestone or marble quarry
Number refers to accompanying list on left



COMPILATION DIAGRAM

0. Mapping by photogeologic methods only
1. Buddington, A. F., and Chapin, Theodore, 1929, plate 1, 1:500,000.
2. Wright, C. W., 1915, plate 15, 1:62,500; and Warner, L. A., and Goddard, E. N., 1960, 1:62,500.
3. Eberlein, G. D. (written communication), 1:31,680.
4. Kennedy, G. C., and Walton, M. S., 1946, plate 22, approximately 1 inch to 1 mile.
5. Kennedy, G. C., 1953, plate 1, 1 inch to 1,000 feet (part of area shown); and Wright, C. W., 1915, plate 5, 1:62,500.
6. Robinson, G. D., 1946, plates 7 and 8, approximately 1 inch to 1 mile.
7. Eberlein, G. D. (written communication), approximately 1:40,000.